

Problems

- [1] Write a program to input two 8-bit numbers from input ports A0H and B0H and output the product to 16-bit output port 7080H.
- [2] Develop a short sequence of instructions that adds AL, BL, CL, DL, and AH. Save the sum in the DH register.
- [3] Write a short sequence of instructions that subtracts the numbers in DI, SI, and BP from the AX register. Store the difference in register BX.
- [4] Develop a sequence of instructions that adds the 8-digit BCD number in AX and BX to the 8-digit BCD number in CX and DX. (AX and CX are the most-significant registers. The result must be found in CX and DX after the addition.)
- [5] Develop a short sequence of instructions that clears (0) the three leftmost bits of DH without changing the remainder DH and stores the result in BH.
- [6] Develop a short sequence of instructions that sets (1) the

rightmost five bits of DI without changing the remaining bits of DI. Save the results in SI.

- [7] Develop a sequence of instructions that sets (1) the rightmost four bits of AX; clears (0) the leftmost three bits of AX; and inverts bits 7,8, and 9 of AX.
- [8] Develop a sequence of instructions that scans through a 300H-byte section of memory called LIST, located in the data segment searching for a 66H.
- [9] Write a program to multiply the two ASCII digits in CH and CL and leave the ASCII result in AH and AL.
- [10] Write a program to add 10-byte of memory in data segment beginning at address SET. Store the result in memory location SUM.
- [11] Assume that there is a class of five people with the following grades: 69, 87, 96, 45, and 75. Find the highest grade.